

Lei Zhang

PERSONAL DETAILS

Gender:	male	Citizenship:	Chinese
Date of Birth:	19 / 05 / 1988	Place of Birth:	Tianjin, China
Email:	lei.zhang@uke.de	Website:	lei-zhang.net

EMPLOYMENT

01/2018 – present	University Medical Center Hamburg-Eppendorf (UKE) , Hamburg, Germany <i>Postdoctoral Researcher</i> at Institute for Systems Neuroscience
12/2016 – 08/2017	F. Hoffmann-La Roche AG , Basel, Switzerland Neuroscience, Ophthalmology and Rare Diseases (NORD), <i>Roche intern for Scientific Exchange (RiSE)</i>
11/2016 – 12/2017	University Medical Center Hamburg-Eppendorf (UKE) , Hamburg, Germany <i>Predoctoral Researcher</i> at Institute for Systems Neuroscience
09/2012 – 10/2013	Basque Center on Cognition, Brain and Language (BCBL) , San Sebastián, Spain <i>Predoctoral Researcher</i>

EDUCATION

2013 – 2017	University Medical Center Hamburg-Eppendorf , Hamburg, Germany Ph.D. in Decision Neuroscience (Oct. 2018) Thesis title: <i>Behavioral and neurocomputational foundations of social influence in human decision-making</i> Supervisor: Dr. Jan Gläscher
2012 – 2013	University of the Basque Country , San Sebastián, Spain M.Sc. Cognitive Neuroscience of Language (Oct. 2013) Thesis title: <i>The role of finger-based number representations in online arithmetic facts retrieval: an ERP study in bilinguals</i> Supervisor: Dr. Elena Salillas
2007 – 2011	Beijing Normal University , Beijing, China B.Sc. Psychology (Jul. 2007) Thesis title: <i>An exploratory research on preschoolers' naïve fractional concept</i> Supervisor: Prof. Dr. Yinghe Chen

FUNDINGS AND AWARDS

2018	Transitional Postdoc Fellowship from UKE, Germany
2013 – 2016	Graduate Fellowship from DFG (German Research Foundation), Germany
2012 – 2013	Graduate Fellowship from BCBL, Spain
2009 – 2011	National Innovation Experiment Program, China
2009 – 2010	BNU Undergraduate Research Fund, China
2010	National Scholarship for Undergraduate Students, Ministry of Education, China

WORKSHOPS AND TRAINING SCHOOLS

09 / 2018	11 th Advanced Scientific Programming in Python, G-Node. Camerino, Italy.
02 / 2015	Zurich SPM Course. Zurich, Switzerland
11 / 2014	Bayesian Statistics for Cognitive Modeling. UKE, Hamburg, Germany
09 / 2014	1 st HBP Training School, Human Brain Project (HBP). Alpbach, Austria
07 / 2014	3 rd European Summer School on “Computational Modeling of Cognition with Applications to Society”. Laufen, Germany

TEACHING EXPERIENCE

11 / 2018	Two-day workshop: R programming and Bayesian statistics. University of Tromsø, Tromsø, Norway.
10 / 2018	Three-day workshop: Bayesian hierarchical modeling (2 ECTS). UKE, Hamburg, Germany.
06 / 2018	Three-day workshop: R statistics and Bayesian hierarchical modeling. University of Tromsø, Tromsø, Norway.
08 / 2017	Workshop: Modeling reinforcement learning and decision-making tasks with the hBayesDM package. King’s College London, London, UK.
10 / 2016	Three-day workshop: Bayesian statistics and Bayesian cognitive modeling (with teaching certificate; 2 ECTS). UKE, Hamburg, Germany.
09 / 2014	Two-day workshop: Intro2Matlab for psychologists. Institute of Psychology, Chinese Academy of Science, Beijing, China.
2010	Teaching assistant for undergraduate courses <i>Social Psychology</i> (Autumn 2010) and
2011	<i>Cognition and Emotion of Children</i> (Spring 2011). BNU, Beijing, China.

RESEARCH SKILLS

Research Methods	Behavioral measure (advanced knowledge), fMRI (advanced knowledge), EEG/ERP (good knowledge)
Data Analysis Methods	Bayesian hierarchical modeling (advanced knowledge), Cognitive modeling (advanced knowledge), Reinforcement learning (good knowledge), General linear models (good knowledge), Mixed models (good knowledge), Machine learning (good knowledge)
Data Analysis Tools	The hBayesDM package (co-author), SPM (good knowledge), FSL (basic knowledge)
Programming	Matlab (advanced knowledge), Stan (advanced knowledge), JAGS (good knowledge), R (good knowledge), Python (basic knowledge), Shell scripting (basic knowledge)
Stimulus Presentation	Cogent Toolbox (advanced knowledge), Psychophysics Toolbox (basic knowledge)

TALKS

05 / 2018	Multiple facets of social influence in goal-directed learning, <i>Invited talk at CNRS</i> , Lyon, France.
08 / 2017	Bayesian computational modeling of decision-making, <i>Invited talk at King’s College London</i> , London, UK.
06 / 2017	A continuous scoring method for the Vineland™-ii Adaptive Behavior Scale: implications for clinical trials in autism spectrum disorders (ASD), <i>Roche Research Forum</i> , Basel, Switzerland.

- 06 / 2016 Social influences in human decision-making, *Internal seminar at UKE*, Hamburg, Germany.
08 / 2015 Modeling social influence on decision-making with reinforcement learning theory.
The 1st International Workshop on the Neurobiology of Social Influence, Moscow, Russia.

PROFESSIONAL AFFILIATIONS AND MEMBERSHIPS

- 2018 – 2020 The European Society for Cognitive and Affective Neuroscience (ESCAN)
2014 – 2017 Bernstein Association for Computational Neuroscience
2015 Society for Neuroscience (SfN)
2014 Organization for Human Brain Mapping (OHBM)
2013 Society for the Neurobiology of Language (SNL)

PUBLICATIONS

- Zhang, L., Gläscher, J. (in prep.). A network supporting social influences on human decision-making.
- Zhang, L., Gläscher, J. (in prep.). Falsifying cognitive computational models is as important as model selection: A tutorial on evaluating posterior predictions with hierarchical Bayesian methods.
- Zhang, L., Hipp, J., Taylor, K., Chatham, C., & Bolognani, F. (in prep.). A continuous scoring method for the Vineland™-II Adaptive Behavior Scale: Implications for clinical trials in Autism Spectrum Disorder (ASD).
- Crawley, D.*, Zhang, L.*, den Ouden, H., ... & the EU-AIMS LEAP consortium (in prep.). Learning in a probabilistic environment in the EU-AIMS LEAP cohort: Examining cognitive flexibility & its relationship with symptomatology *Co-first authors.
- Zhou, L.*, Zhang, L.*, Su, Y., & Liang, ZY. (in prep.). Is zero void? The Hidden-zero effect in risky decision-making. *Co-first authors.
- Zhou, L., Li, AM., Zhang, L., Li, S., & Liang, ZY. (under review). Similarity in processes of risky choice and intertemporal choice: The case of certainty effect and immediacy effect.
- Zhang, L., Redžepović, S., Rose, M., & Gläscher, J. (2018). Zen and the Art of Making a Bayesian Espresso. *Neuron*, 98(6), 1066-1068.
- Hu, Y., He, L.*, Zhang, L.*, Wölk, T., Dreher, J. C., & Weber, B. (2018). Spreading inequality: Neural computations underlying paying-it-forward reciprocity. *Social cognitive and affective neuroscience*, 13(6), 578-589. *Equal contribution.
- Ahn, W.-Y., Haines, N., & Zhang, L. (2017). Revealing neurocomputational mechanisms of reinforcement learning and decision-making with the hBayesDM package. *Computational Psychiatry*, 1, 24-57.
- Zhang, L., Martínez, A., & Salillas, E. (2014). Brain potentials reveal audiovisual integration in bilinguals on arithmetic fact retrieval. *Proceedings of the 2014 IEEE International Conference on Multisensor Fusion and Information Integration for Intelligent Systems (MFI)*, pp. 1-6.
- Yu, S., Lei, X., & Zhang, L. (2010). A survey on need-abandonment among university students. *Proceedings of the 18th BNU "JingShi Cup" Academic Competition*, the 3rd Prize, (in Chinese).
- Zhang, L.*, Zheng, X.* (2009). An investigation of college students' concept of death and self-identity attribution analysis. *Proceedings of the 17th BNU "JingShi Cup" Academic Competition*, the 2nd Prize, (in Chinese). *Co-first authors.

CONFERENCE ABSTRACTS

- Zhang, L., Gläscher, J. (2018). Neurocomputational mechanisms of social influence in goal-directed learning. *Poster (poster spotlight) presented at FENS Spring Brain Conference: Computational Neuroscience of Prediction*. Rungstedgaard, Denmark.
- Zhang, L., Hipp, J., Taylor, K., Chatham, C., & Bolognani, F. (2017). Age-binned normalization of Vineland™-II increases variability in standard scores: Implications for clinical trials in Autism Spectrum Disorder (ASD). *Poster presented at The International Meeting for Autism Research (IMFAR)*, San Francisco, CA, USA.
- Zhou, L.*, Zhang, L.*, & Liang, Z.-Y. (2016). Comparing the underlying process between intertemporal choice and risky choice. *Talk presented at the 35th Annual Meeting of the European Group of Process Tracing Studies (EGPROC)*, Bonn, Germany. *Co-first authors.
- Zhang, L., Gläscher, J. (2015). Modeling social influence on human decision-making with reinforcement learning theory: A Bayesian perspective. *Poster presented at the Society for Neuroscience Annual meeting (SfN 2015)*, Chicago, IL, USA.
- Zhang, L., Gläscher, J. (2015). Modeling social influence on human decision-making. *Talk presented at the 57th Conference of Experimental Psychologists (TeaP)*, Hildesheim, Germany.
- Zhang, L., Gläscher, J. (2014). Reinforcement learning signals of social influence on human decision-making. *Poster presented at the Bernstein Conference 2014*, Göttingen, Germany.
- Zhang, L., Martínez, A., & Salillas, E. (2014). The role of finger-based number representations in online arithmetic facts retrieval. *Poster presented at the 20th Annual Meeting of the Organization for Human Brain Mapping (OHBM)*, Hamburg, Germany.

AD HOC REVIEWING

Social, Cognitive and Affective Neuroscience

PERSONAL QUALIFICATIONS

Languages	Chinese (native), English (working proficiency), German (beginner), Spanish (basic)
Computer Skills	Microsoft Certified Application Specialist (MCAS) in Microsoft Word 2007, Google Power Searcher, Windows OS, Linux OS, Mac OS

MISCELLANEOUS

2013 – 2014	Contract Translator. Zheng, X., Zhang, L., & Jiang, W. (2016). <i>Health psychology. China Light Industry Press</i> . Beijing, China. (Original copy: Brannon, L., Feist, J., & Updegraff, J. (2013). <i>Health psychology: An introduction to behavior and health</i> . United States: Cengage Learning.)
2008	Excellent Olympic Volunteer of Olympic Media Village, Beijing Olympic Games.
2007 – 2009	Member of BNU Student Choir, participated in national concerts
2006	Member of Tianjin No.1 High School Student Choir, participated in regional and international concerts